

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) Method of A printing system on a press,
providing a printing run length of said press to be
increased with a factor of at least 5 versus a reference
run length, making use therefore of a lithographic printing
plate , said method comprising the steps of:
- image-wise exposing to infrared light a heat sensitive imaging element, said element being optionally present on the press before starting said image-wise exposing step to infrared light, wherein said element comprises, on a lithographic base with a hydrophilic surface thereupon, an image-forming layer including hydrophobic thermoplastic polymer particles and a hydrophilic polymer binder, and, optionally, an infrared absorbing compound, wherein said hydrophobic polymer particles contain more than 0.1 wt % of nitrogen and have an average particle size diameter in the range from 0.015 to 0.15 μm , being a range wherein said increased run length is provided for the same reduction of same average particle size diameters of said hydrophobic polymer particles and of reference hydrophobic polymer

particles providing said reference run length and wherein
reference particles are containing no or less than 0.1 wt %
of nitrogen,

- developing the image-wise exposed imaging element by
mounting it on a print cylinder of a printing press and
applying an aqueous dampening liquid and/or ink to said
imaging element while rotating said print cylinder,
~~— providing a printing run length of said press, increased~~
~~with a factor of at least 5, when reducing the average~~
~~particle size diameter of said hydrophobic polymer~~
~~particles in an amount of more than 25% starting printing~~
up to said increased run length.

2. (Currently Amended) Method System according to claim 1,
wherein said hydrophobic polymer particles ~~are containing~~
containing structural chemical groups selected from the
group consisting of amide, urethane, methacrylonitrile,
crotonitrile, vinylidene cyanide, isocytosine, pyrrolidone,
piperazine, cyanomethyl, cyanoethyl, cyanopropyl,
cyanoaryl, cyanoacrylate, primary amines, mono- or di- n-
alkyl substituted amines, urea, imide, imine, triazine,

sulfonamide, onium, melamine, pyrimidine, ureido-pyrimidone, pyridine, barbiturate, isocyanurate or imidazole.

3. (Currently Amended) Method System according to claim 1, wherein said hydrophilic polymer binder is a water-soluble, water-dispersable, alkali-dispersable or alkali-soluble polymer.

cond 4. (Currently Amended) Method System according to claim 1, wherein the hydrophobic thermoplastic polymer particles consist of a homopolymer or copolymer of monomers selected from the group consisting of styrene, tert.-butylstyrene, methylmethacrylate, peramethylstyrene, methacrylonitrile, N-alkyl substituted acrylamides, N-alkyl substituted methacrylamides and maleimides.

5. (Currently Amended) Method System according to claim 1, wherein the hydrophobic thermoplastic polymer particles are present in the image forming layer in an amount of at least 50 wt%.

6. (Currently Amended) Method System according to claim 1,
wherein further comprising a second hydrophilic polymer
~~binder is present in said image forming layer or in~~ a layer
adjacent to said image forming layer thereto.

7. (Currently Amended) Method System according to claim 1,
wherein the infrared absorbing compound is an anionic
infrared cyanine dye absorbing infrared radiation in the
wavelength range from 800 to 1100 nm and wherein the
infrared absorbing compound is present in said image
forming layer or in a layer adjacent thereto.

8. (Currently Amended) Method System according to claim 1,
wherein the hydrophilic surface is a lithographic surface,
present on a metal support, being a plate or a print
cylinder.

9. (Canceled)

10. (Canceled)

11. (Canceled)

12. (New) Method of printing on a press, said method comprising the steps of:

image-wise exposing to infrared light a heat sensitive lithographic printing plate, wherein said lithographic printing plate comprises:

a lithographic base with a hydrophilic surface

thereupon, an image-forming layer including hydrophobic thermoplastic polymer particles and a hydrophilic polymer binder, and, an infrared absorbing compound, wherein said hydrophobic polymer particles contain more than 0.1 wt % of nitrogen and have an average particle size

diameter in the range from 0.015 to 0.15 μm ,

developing the image-wise exposed printing plate by


mounting it on a print cylinder of a printing press

and applying an aqueous dampening liquid to said

imaging element while rotating said print cylinder, and printing.

13. (New) The method of claim 12 wherein said lithographic printing plate is present on said press prior to said image-wise exposing.

14. (New) The method of claim 12 wherein said dampening liquid comprises ink.

 15. (New) Method of printing on a press, said method comprising the steps of:
image-wise exposing to infrared light a heat sensitive lithographic printing plate, wherein said lithographic printing plate comprises:
a lithographic base with a hydrophilic surface thereupon, an image-forming layer including hydrophobic thermoplastic polymer particles and a hydrophilic polymer binder, and, an infrared absorbing compound, wherein said hydrophobic polymer particles contain more than 0.1 wt % of nitrogen and have an average particle size diameter in the range from 0.015 to 0.15 μm ,

developing the image-wise exposed imaging element by
mounting it on a print cylinder of a printing press
and applying an aqueous ink to said imaging element
while rotating said print cylinder, and

printing;

with the proviso that said printing is at least 5 times
faster than printing when said hydrophobic polymer
particles contain less than 0.1 wt% nitrogen and have an
average particle diameter more than 0.15 μm .

16.(New) The method of claim 15 wherein said lithographic
printing plate is present on said press prior to said
image-wise exposing.

17.(New) The method of claim 15 wherein said ink comprises a
dampening liquid.
